



17 1645
PATENT
Docket: A-67229-6/RFT/RMS/RMK
46307745

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First Named		
Inventor:	Bassil I. DAHIYAT	Examiner: T. H. BHATTI
Application No.:	09/782,004	
Filing Date:	February 12, 2001	Group Art Unit: 1645
Title:	Protein Design Automation for Protein Libraries	

CERTIFICATE OF MAILING

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Signed: Mari Klemeidam
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UNDER 37 CFR 1.97(B)**

Commissioner for Patents
Washington, DC 20231

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying form PTO-1449. Copies of the references are enclosed.

As required by M.P.E.P. §2001.06(b) Applicant notes that the present application is related to the following patent applications:

1. U.S.S.N. 09/419,351, filed October 15, 1999;
2. U.S.S.N. 09/927,790, filed August 10, 2001;

3. U.S.S.N. 10/101,499, filed March 18,2002; and
4. U.S.S.N. 10/218,102, filed August12, 2002

None of the foregoing references are believed to disclose the invention as claimed.

Nothing herein shall constitute an admission concerning the contents of any of the cited references, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application. Submission of the present document shall not be construed as an admission that a search has been made or that better art does not exist.

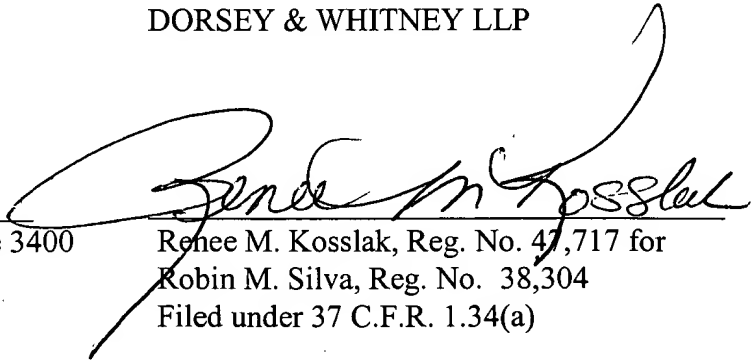
As far as is known to the undersigned, this Information Disclosure Statement is being filed within three months of the filing date of a national application, within three months of the date of entry of the national state in an international application, or before the mailing date of a first Office Action on the merits as set forth in 37 C.F.R. § 1.97(b), and therefore no fee is required. While no fee is believed to be due, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-2319 (Our Order No. A-67229-6RFT/RMS/RMK).

Respectfully submitted,

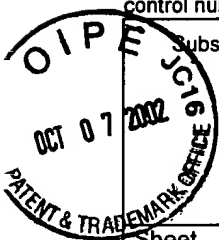
DORSEY & WHITNEY LLP

Dated: 10/2/02

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Renee M. Kossiak, Reg. No. 47,717 for
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Sheet 1 of 4

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Application Number	09/782,004	OCT 08 2002
Filing Date	February 12, 2001	
First Named Inventor	Bassil I. Dahiyat	
Group Art Unit	1645	
Examiner Name	not yet assigned	
Attorney Docket Number	A-67229-6/RFT/RMS/RMK	

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U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	A1	4,939,666		Hardman, K.D.	07/03/1990	
	A2	5,241,470		Lee et al.	08/31/1993	
	A3	6,188,965		Mayo et al.	02/13/2001	
	A4	6,269,312		Mayo et al.	07/31/2001	

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	C1	Brenner and Berry, A., et al., "A quantitative methodology for the de novo design of proteins", Protein Sci. 3:1871-1882 (Oct. 1994).	
	C2	Borman, "Proteins to Order," Chemical and Engineering Newsletter (C&EN) Oct. 6, 1997, 9-10 (1997).	
	C3	Bowie, J.U., et al., "Deciphering the Message in Protein Sequences: Tolerance to Amino Acid Substitutions", Science vol. 247:1306-1310 (Mar. 1990).	
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	C6	Cornell et al., "A Second Generation Force Field for the Simulation of Proteins, Nucleic Acids, and Organic Molecules," J. Am. Chem. Soc., 117:5179-5197 (1995).	

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		Filing Date	February 12, 2001
		First Named Inventor	Bassil I. Dahiyat
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Sheet	2	of	4
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	C7	Dahiyat, B.I., et al., "Automated design of the surface positions of protein helices", Protein Science 6:1333-1337 (Jun. 1997).	
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	C20	Eisenberg, D., et al., "Solvation energy in protein folding and binding", Nature vol.319:199-203 (Jan. 1986).	
	C21	Goldstein, R.F., "Efficient Rotamer Elimination Applied to Protein Side-Chains and Related Spin Glasses", Biophys. Jour. vol. 66:1335-1340 (May 1994).	

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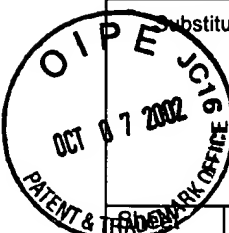
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Examiner Name	not yet assigned	
Attorney Docket Number	A-67229-6/RFT/RMS/RMK	

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	C22	Gordon et al. "Energy functions for protein design," Curr. Opinion in Struct. Biol., 9:509-513 (1999).	
	C23	Harbury et al., "High-Resolution Protein Design with Backbone Freedom," Science, 282:1462-1467 (1998).	
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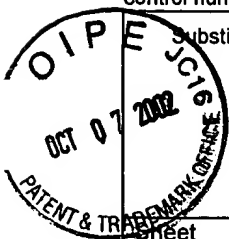
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	C38	Munoz, V., et al., "Intrinsic Secondary Structure Propensities of the Amino Acids, Using Statistical phi-psi Matrices: Comparison with Experimental Scales", Proteins 20:301-311 (1994).	
	C39	Munoz, V., et al., "Analysis of the effect of local interactions on protein stability", Folding & Design 1(3):167-178 (Apr. 1996).	
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	C41	Padmanabhan, S., et al., "Relative helix-forming tendencies of nonpolar amino acids", Nature vol.344:268-270 (Mar. 1990).	
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	C50	Villegas et al., "Stabilization of proteins by rational design of .alpha.-helix stability using helix/coil transition theory," Folding & Design, 1(1):29-34 (1995).	
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	C52	Wilson et al. "Computational Method for the Design of Enzymes with Altered Substrate Specificity," J. Mol. Biol. (1991) 220,495-506.	
	C53	Wodak, S.J., et al., "Analytical approximation to the accessible surface area of proteins", Proc. Natl. Acad. Sci. USA vol.77(4):1736-1740 (Apr. 1980).	

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